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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/616,843	07/14/2000	Peter Nash	C150.12.3B	6411

7590 02/16/2006

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EXAMINER

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ART UNIT PAPER NUMBER

1644

DATE MAILED: 02/16/2006

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/616,843
Filing Date: July 14, 2000
Appellant(s): NASH ET AL.

Richard John Bartz
For Appellant

SUPPLEMENTAL EXAMINER'S ANSWER

Pursuant to the Remand by the Board of Patent Appeals and Interferences on August 16, 2005 and December 5, 2005, a supplemental Examiner's Answer is set forth below:

The Table of Contents in The Phoenix Applications Management System and the PALM INTRANET Content Information for "Reply Brief Noted by Examiner" dated 08/16/2004 has been reconciled.

The Reply Brief dated 6/9/2004, which was not in the PALM INTRANET before but in the Phoenix Application Management System, has been entered in PALM INTRANET.

Art Unit: 1644

Responsive to Reply Brief filed on June 9, 2004 and another copy of the same Reply Brief filed on September 29, 2005, a supplemental Examiner's Answer to said Reply Brief is set forth below.

The new issues raised by Appellants in said reply brief and the Examiner's arguments are as follows.

- Appellants submit a publication "The effect of dietary chicken egg-yolk antibodies on clinical response in weaned pigs challenged with a K88+ *Escherichia coli* isolate". (Chernysheva et al, J. Swine Health Prod 204: 12(3): 119-122). The study reported in this publication states that the egg-yolk-antibody IgY product did not protect susceptible pigs from developing diarrhea as a result of oral challenge with *E. coli*. This study follows the teachings of Tokoro ('895 patent) which is the primary prior art reference in the rejection of the claims 14-16, 19-24 and 27-32 based on 35 U.S.C. 103(a).

It is the Examiner's position as to the teachings Chernysheva et al that the bacteria K88+ *Escherichia coli* differs from the bacteria (immunogen) *P. anaerobius*, *C. sticklandii* or *C. aminophilium* recited in the instant claims. The egg yolk antibody IgY that binds specifically to *Escherichia coli* taught by Chernysheva et al also differs from the egg antibody IgY (from the yolk), IgM and IgA (from the albumin) that bind to *P. anaerobius*, *C. sticklandii* or *C. aminophilium* in the claimed method. Appellants state in the reply brief that "This study follows the teachings of Tokoro ('895 patent)". However, appellants do not point to the teachings in the Chernysheva et al reference to support their position, making the said argument spurious. No where in the Chernysheva et al reference suggests that their study follows the teachings of Tokoro ('895 patent). Even if the Chernysheva et al reference follows the teachings of Tokoro ('895 patent) using only egg-yolk-antibody IgY product instead of egg antibodies from whole egg that includes IgY immunoglobulins found in the yolks and IgM and IgA immunoglobulins found the albumin of the eggs just for the sake of argument, in addition to the use of IgY antibody, '895 patent also teaches the use of bird antibodies from "overall ovum" to promote the growth of food animal by preventing diarrhea in livestock (see summary of invention, col. 3, lines 50-67, in particular). The bird antibodies from the "overall ovum" taught by the '895 patent include the IgY immunoglobulins found in yolk and the IgM and IgA immunoglobulins found in the albumin of the eggs.

Art Unit: 1644

- Appellants have conducted bead studies to demonstrate that antibodies disclosed in the application bind to bacteria. Bead studies were used because you can see them more clearly. The beads are activated and then coated with antibodies from specific egg products disclosed in the application. Exhibit A are uncoated plastic beads. Exhibit B show egg-coated beads with no bacteria. Exhibit C shows *Streptococcus bovis* bound to a bead coated with antibody taken directly from rumen fluid. Exhibit D shows *E coli* plus a bead with normal egg. Exhibit E shows *E coli* O157:h7 bound in three dimensions to O157 antibody coated bead. Exhibit F shows *fusobacterium necrophorum* bound to two beads. The binding action of the egg immunoglobulins to appellants' claimed method promoting the growth of food animals is a discovery beyond the teachings of the prior art.

It is the Examiner's position that first, *in vitro* binding of *E coli* O157:h7 specific antibody coated bead to *E coli* O157:h7 is not equivalent to the *in vivo* method of promoting the growth of food animals by decreasing the waste of dietary protein caused by the presence of a protein-wasting immunogen *P. anaerobius*, *C sticklandii* or *C. aminophilium* in the rumen or intestinal tracts of food animals. Second, the egg antibodies that bind specifically to *streptococcus bovis* or *E coli* O157:h7 are not the same egg antibodies that bind specifically to *P. anaerobius*, *C sticklandii* or *C. aminophilium* as required by the claimed method. An antibody is only as good as the binding specificity of the antibody. In this case, the egg antibodies must bind specifically to the particular bacteria *P. anaerobius*, *C sticklandii* or *C. aminophilium* in the rumen or intestinal tracts of the particular food animal. Finally, the exhibit does not show that egg antibody IgY coated bead bind to *E coli* O157:h7 or *streptococcus bovis* any less than egg antibodies IgY, IgM and IgA coated bead to *E coli* O157:h7 or *streptococcus bovis*.

All rejections remain and can be found in the Examiner's answer mailed 5/5/04.

Appellant may file another reply brief in compliance with 37 CFR 41.41 within two months of the date of mailing of this supplemental examiner's answer. Extensions of time under 37 CFR 1.136(a) are not applicable to this two month time period. See 37 CFR 41.43(b)-(c).

A Technology Center Director or designee has approved this supplemental examiner's answer by signing below:



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